preprocessinc

Chemical Engineering for Entrepreneurs

Project Execution Philosophy

PreProcess leads projects. Leadership is the art of delivering what conventional management wisdom says cannot. PreProcess is a process development and process engineering firm with the capability to take a project from idea inception through development, design, construction, and commissioning. We deliver fully operational systems producing product at rate, at cost, and at spec.

We use resources that can respond and flex to the size of the project. We cover the needed services to deliver projects ranging from idea inception and patent art studies, to fuzzy front end definition of new technologies, to scale up and installation of first plant applications of client developed technologies all the way through the build and operational normalization of the systems.

We believe first in focusing on the early relationship build with our clients insuring that the goals and framework of success are defined. We work with our clients to determine the art of the possible understanding the reality of safety, cost, and ultimate operational success metricsbased upon the specifications of the product and system performance desired.

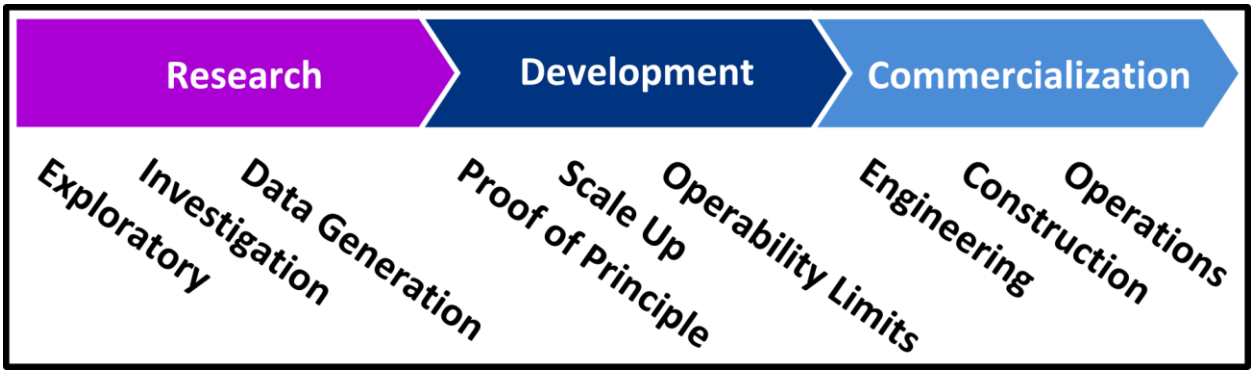
We have worked both in corporate America and in the blistering pace of the venture capitalist funded start up world. We work with entrepreneurial passion and corporate depth.

We have installed multiple chemical engineering technologies. We have led and delivered the engineering, construction and commissioning for multimillion dollar projects. Our forte lies in not only running the base chemical engineering on established technologies, but also the scale up and start up of developing technologies that need a path forward to commercialization. We have worked mining, refining, chemicals, foods, and fuels and through our variety of experiences have a developed a solid foundation of the tricks of the chemical engineering trade to bring to bear technology solutions. In one of our most recent projects, we developed, installed and operated the world's first supercritical biodiesel production facility, winning a 2010 World Economic Forum Technology Pioneer Award.

We bring the unique perspective of the need for speed, with the balance of responsible engineering leadership to meet fast paced business objectives. We provide the technical support to make our client's business opportunities a reality. This is where we love to operate. We define technology, scale it, prove it, build it and then set the stage for multiple re-applications to scale the business such that the success and growth of the client's business vision can be realized.

Multi-Phase Project Execution Model

Research, Development and Commercialization



In every effort from fuzzy front end concept development to basic engineering packages, a series of iterative investigative learning events must occur. This is where the kernel or the idea for the technology and the project first emerges. These interactive learning opportunities better craft not only the technology but also the commercial opportunity.

To develop basic engineering packages including commitment grade cost estimates and the owner's level project schedule for the detailed engineering, construction management, and operations commissioning we first engage in detailed learning and refinement of scope. This is commonly known as Phase 0 where activities include idea exploration, concept investigation, experimental data generation, proof of principle runs, and both individual equipment scale up and integrated system scale up.

In our experience, major inputs, outputs and conversion operations need to be characterized to insure success. Many times we have found that early project developments base financial and expected technical performance on claims that may or may not have valid data associated with the claim. We will present an analysis of the current state of the expected conversion parameter characterization then present a process development proof of principle plan to validate the claims or shore up the sections of run data that may need to be created to insure success of later phases of the project. This process development effort requires a separate proposal as many times the equipment trial runs and proof of principle experiments involve other not yet identified resources.